



WINNIPEG POLICE SERVICE FLIGHT OPERATIONS UNIT

2011

Operation Report



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Winnipeg Police Service Flight Operations Unit

OPERATION REPORT 2011

1. REPORT SUMMARY

The following document presents an operation report of the Winnipeg Police Service Flight Operations Unit (FOU) during 2011, including Unit development and performance.

Statistical data regarding performance reports on the time frame of February 1, 2011 to December 31, 2011, as the Flight Operations Unit crew operated in a training phase during January 2011.

2. BACKGROUND

The introduction and implementation of the Flight Operations Unit required a considerable amount of research and evaluation, as well as approvals and cooperation from two levels of government, those being the Province of Manitoba and the City of Winnipeg.

Brief History

As early as 1978, the Winnipeg Police Service maintained interest in the implementation of a helicopter-equipped aerial support unit. In 1998 and 2002 notable research and recommendations occurred, but without action.

In 2009, The Winnipeg Police Service completed an in-depth study into the benefits of a Flight Operations Unit by examining its closest comparators, reviewing relevant research, and applying the benefits seen elsewhere to the Winnipeg model.

In Canada in the last ten years, a number of the large urban Police Services, currently either operate or have regular and reliable access to the use of a Flight Operations Unit, in particular a helicopter. Cities utilising this craft in a patrol capacity include Lower Mainland RCMP (2000), Calgary (1995), Edmonton (2001), York Region (2000), Durham Region (2000), London (tested in 1995) and Montreal (on going with QPP). Many of the units have moved to multi-aircraft operations including Calgary (2007), Edmonton (2009) and Greater Vancouver Lower Mainland (2008-RCMP).

As reported by those helicopter-equipped Services, significant benefits have been realized, including pursuit management and related liability reduction, increased public safety, officer safety, higher clearance rates, freeing up of other "on the ground" resources and the ability of the aerial support to serve as a "force multiplier" (a tool that allows one officer to accomplish the work of many). Successes in these jurisdictions include:

- reduced risk when managing criminal flight incidents
- greater than 99% apprehension rate on criminal flight incidents
- increased criminal apprehension rate on a variety of call types
- significant role in the re-deployment of police personnel
- deterrence and enforcement of traffic related issues (street racing, impaired driving)
- rapid response times
- targeted high profile deterrence tool
- live video feed of incidents to ground command
- mass area searches for lost persons (Alzheimer's, children)

Approval

The Winnipeg Police Service received full financial support through significant capital budget contribution from the City and operational funding from the Province of Manitoba.

As in the report to Council on January 27, 2010, the following received approval:

On January 20, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Protection and Community Services and submits the following to Council:

- 1. That subject to approval of new incremental funding from the Province of Manitoba for all ongoing annual operating costs, estimated at \$1.3 million in 2010 plus cost increases thereafter, the Winnipeg Public Service be directed to procure a fully-equipped Flight Operations Unit together with a hangar to house the unit.*
- 2. That subject to confirmation of funding from the Province of Manitoba as noted above:*
 - A. The associated annual operating costs and provincial funding be included in the 2010 to 2012 Operating Budget, estimated at \$1.3 million in 2010; and*
 - B. The expenditures be authorized in 2010 prior to the adoption of the 2010 Operating Budget as a first charge, in accordance with Subsection 288(2) of The City of Winnipeg Charter to allow the Winnipeg Police Service to begin to implement the new Flight Operations Unit.*
- 3. That the Chief Administrative Officer be delegated the authority to award the contracts for the acquisition of the Flight Operations Unit (helicopter), hangar, and all related operational equipment. This authority may not be further delegated.*
- 4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.*

On February 16, 2010, the Province of Manitoba announced its financial support for the operating expenses for a three year term in the amount of \$1.3 million annually.

Acquisition Process

Bid Opportunity 73-2010 was posted on the City of Winnipeg Materials Management Bid Opportunities webpage and was distributed to potential bidders identified by Winnipeg Police Service with a closing date of March 5, 2010. Eurocopter Canada Limited submitted the most advantageous bid, and was awarded the contract for supply and delivery of a Police Helicopter, model EC120.



Unit Office and Hangar

The Winnipeg Police Service entered into an agreement with 17 Wing Winnipeg that established a cooperative working arrangement for rental of hangar and office space to house the helicopter and operational support staff for the Flight Operations Unit. The leased area amounts to 232.25 m² of hangar space while the leased office space includes 51.47 m².

The original lease was effective for one year, commencing October 2010 and terminating September 2011, with the option for renewal for two additional one year terms subject to mutual agreement from both parties. In September 2011, the Service signed a second year lease.

Contracts

Engine: Turbomeca Canada

The Winnipeg Police Service entered into a "Support by the hour" contract with Turbomeca Canada which in essence is an insurance plan to have a fully operational engine in the airframe, regardless of the issue. The original Arrius-2F engine was generating metal particles which caused the need to swap between the replacement engine and the original engine several times while Turbomeca sought to repair the problem in the original engine, the Arrius-2F #34676. In September 2011, the Winnipeg Police Service agreed to officially sign the Arrius-2F #34189 engine to the airframe and retain it as it was operating well.

The Arrius-2F engine is overhauled completely every 3000 hours, resulting in an engine that is virtually new. A compensation agreement was prepared with Turbomeca to account for the maintenance cycle changes with the replacement engine.

Maintenance: Novex Helitrades Incorporated

Bid Opportunity 587-2010 for the Provision of Aircraft Maintenance Engineer Services closed August 2010, with the contract awarded to Novex Helitrades Incorporated, which operates from Edmonton, Alberta. The contract was awarded as "one year from the date of the first invoice" and up to four (4) one-year extensions as mutually agreed upon, with the first invoice dated January 5, 2011.

Fuel

The contract for fuel was initially awarded through Bid Opportunity 700-2010 to Central Aviation Services (Esso Avitat) from December 1, 2010 to July 31, 2011 with an annual estimated volume of 120,000 litres.

The Service recognized the opportunity for significant fuel cost savings by partnering with the Province of Manitoba in an aviation fuel contract, due to the significantly higher volume which would result in bulk discount savings. This partnership was established in the provincial bid opportunity set to be awarded by July 31, 2011. Due to a delay in the provincial contract award until November 2011, several one month extensions were granted to maintain fuel service under the contract with Central Aviation Services.

Under the partnered contract, the next contract for fuel was awarded to Imperial Oil for the period of November 7, 2011 to September 30, 2013.

Insurance

As organized through the City of Winnipeg insurance branch, the insurance underwriter for the Flight Operations Unit is Catlin Canada Inc. The coverage of the hull (helicopter) is \$2,640,000 USD, the mission equipment coverage is \$476,000 USD and \$100,000,000 USD in liability.

3. UNIT FORMATION

Structure

The Unit was formed with the following personnel:

- Chief Pilot (permanent civilian employee) – one
- Line Pilots (civilian contract 2 and police sector 1) – three
- Tactical Flight Officers (TFO) – four
- Administrative Patrol Sergeant – one
- Aircraft Maintenance Engineer (contract) – one



Pilots

As the Winnipeg Police Service had no commercial helicopter pilots on staff, there was a need to bring the necessary aviation experience into the Service to initiate the flight operations program. A then current Edmonton Police Service member and former EPS Chief Pilot was hired to implement the program and enable the Winnipeg police to draw from nine years of experience and management of a similar police program. The Chief Pilot was hired as a staff member of the Winnipeg Police Service.

Under the guidance of the Chief Pilot, the Winnipeg Police Service hired two external civilian line pilots under contract for 12 months and 24 months respectively to initiate Unit operations and implement an in-house pilot program. Research showed that other agencies experienced challenges with maintaining pilots in police helicopter units, as the helicopter industry is very transient and the police units require extensive night shifts.

The Unit set the goal to train a police member to fly and take over the line pilot position at the 12 month contract expiration. Then a second police member would be selected to initiate training and take over the second contract pilot position when the 24 month contract expired. As police members generally remain with the Service for at least 25 years, the goal was to train sworn members over time to be pilots.

In October 2010, the Winnipeg Police Service selected a police sector member to become the first helicopter pilot and flight training was initiated in January 2011. Between January and July 2011, the member completed his commercial rotary wing licence through Millennia Helicopter Ltd. at the St. Andrews Airport. Between July and September 2011, the member completed the Airborne Law Enforcement training and night rating. In October 2011, the police pilot returned from Canadian Helicopters in Penticton B.C. with the EC120 type certification endorsement and recurrent emergency training, after which, he was ready to fly.

Through a series of unexpected circumstances, the 24 month contract civilian line pilot was unable to continue flying due to a medical issue causing a license restriction. This caused a delay of 15 months for the next police pilot to be ready to fly at the 24 month contract expiry and changed the philosophy to a "hybrid-pilot" program to ensure the Unit had the necessary experience for safety. To compound the pilot issues, the Chief Pilot resigned in September 2011 due to personal issues.

In October 2011, the Unit hired the 12 month contract pilot into the Chief Pilot position as a staff member of the Service and advertised for an experienced civilian pilot with 2000+ hours of experience to fill the void and support the police member pilot with 150 hours.¹

¹ From December 2011 to March 2012, two line pilot application processes were conducted to find a suitable candidate. In March 2012, the Chief Pilot unexpectedly resigned. In April 2012, the Service posted the Chief Pilot position and hired a civilian line pilot with 3000+ hours of experience. In 2012, the Service anticipates the hiring of a Chief Pilot to oversee the aviation operations with a police sector line pilot and a staff sector line pilot forming a "hybrid-pilot" program.

Tactical Flight Officer

In January 2011, four Constables were assigned and trained as Tactical Flight Officers. In July 2011, due to personal matters, the unit replaced one police Constable Tactical Flight Officer from the unit with a member from the original TFO application process from July 2010.

Administrative Patrol Sergeant

One Patrol Sergeant is assigned to supervise day to day operations. The Administrative Patrol Sergeant coordinates the Aircraft Maintenance Engineer contract and directly supervises the Chief Pilot and the Tactical Flight Officers. The Administrative Patrol Sergeant reports to the Staff Sergeant supervising the Flight Operations Unit.

Aircraft Maintenance Engineer (AME)

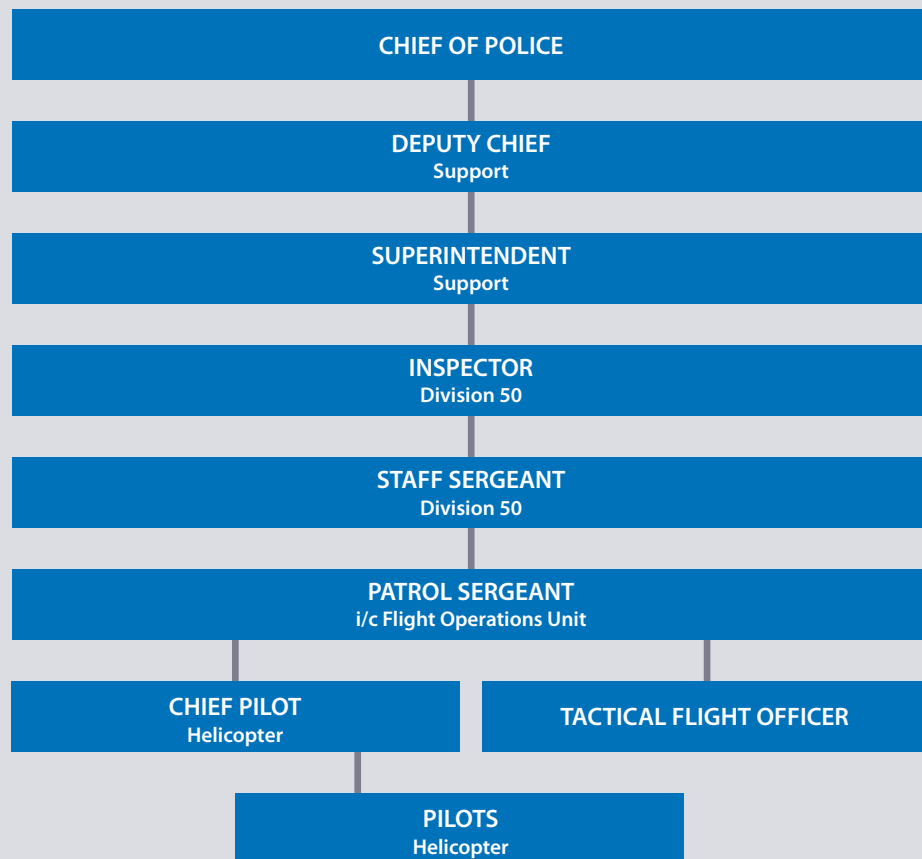
The Helicopter maintenance contract was awarded to Novex Helitrades Incorporated, from Edmonton Alberta. This position and work was contracted out due to the expertise necessary to perform the maintenance role on the helicopter. The Aircraft Maintenance Engineer is brought in to perform regularly scheduled maintenance. The AME reports to the Administrative Patrol Sergeant.



Photo by Robert O'Quinn, ALEA.

First year Flight Operations Unit members.

Unit Organization Chart



Flight Operations Unit Objectives

The primary purpose of the Flight Operations Unit is to support all operational and investigative Service units in the detection of criminal acts and the apprehension of suspects. The Unit is prepared to fly 1000 hours a year on missions with a variety of scopes. Air crews are able to provide assistance with the following, weather permitting:

- response to crimes in progress for aerial containment and investigation
- infrared searches for suspects and evidence, and co-ordination of ground response
- tracking and surveillance of suspect vehicles during police pursuits and subsequent co-ordination of ground resources
- illumination of crime scenes, collision scenes, vehicle stops, search areas, disturbances, and foot pursuits
- aerial searches for missing or lost persons
- aerial reconnaissance and photography or videotaping of crime scenes, traffic collisions, high-risk incidents or remote areas
- aerial platform for Emergency Services for major fires, environmental disasters, or other major incidents
- Forward Looking Infrared (FLIR) scans to provide evidence of illegal grow operations relating to drug investigations
- rapid deployment of Canine Unit members to remote locations under exigent circumstances

With the exception of only a few, the Unit was involved in most types of events above. Fortunately, no major fires in 2011 required coordination with the Winnipeg Fire Department from the air. However, AIR1 attended numerous fire scenes and coordinated assistance with fire crews at those incidents with the Nightsun. In terms of natural disasters, video footage gathered by AIR1 was used to assess the impacts of flooding along the Red and Assiniboine Rivers within the City of Winnipeg during the 2011 flood.

Training

Integration of the helicopter into day-to-day police operations began immediately following the arrival of the machine in December 2010. The crew of the Flight Operations Unit operated in a training phase during January 2011, as the Tactical Flight Officers and Pilots practiced the tactics of airborne law enforcement.

The Unit conducted in-flight training, allowing members to participate in live incidents and refine their skills from a unique aerial perspective without direct involvement in the calls for service. Crew members also participated in training with members in specialized patrol units, including the Canine Unit and Tactical Support Team.

In early February 2011, with the call sign of AIR1 for the helicopter, the partnership between ground units and the Flight Operations Unit became operational.

Pilots

Aside from the original Chief Pilot hired, both civilian line pilots and the police pilot all required training (type certification) on the EC120. This included ground school lectures delivered by the Chief Pilot as well as factory training for the two civilian line pilots.

All pilots also attended Canadian Helicopter in Penticton, B.C. for annual re-current training on the EC120 where they are exposed to and tested on a series of in-flight emergency procedures.

Tactical Flight Officers (TFO)

The Tactical Flight Officers were initially mentored by a highly experienced TFO who worked with the Edmonton Police Service Flight Operations Unit for over 10 years. Once core skills were learned, each TFO had approximately one month to practice and develop before the unit was declared operational.

Two of the TFO have also received formal training by attending a Tactical Flight Officer course hosted by the Airborne Law Enforcement Association.



4. EQUIPMENT

EC120 Helicopter

On December 6, 2010, the Service publicly unveiled the EC120 helicopter, delivered by Eurocopter Canada Limited. The EC120 is a Canadian law enforcement air support favourite and has become a benchmark for police operations.

The five-seat, 1.6-ton single-engine EC120 has the latest generation technologies, featuring high maneuverability, excellent visibility, a large cockpit and a low noise signature. The EC120 features a quiet main rotor system with all composite blades and a shrouded Feneston tail rotor which is very reliable, safe and quiet. Flying over at 1,000 feet above ground level (agl), the EC120 has a perceived noise of 68 dB, which means it is difficult to detect. It's the quietest helicopter in its class, and its engine emissions have low levels of pollutants.

The helicopter provides versatile aerial support to police units on the ground. The EC120 is crewed with a pilot and Tactical Flight Officer who is responsible for determining the use of the helicopter and controls its hi-tech systems.

Equipment Summary

Equipment	Summary
Forward Looking Infrared (FLIR)	This unit consists of a gyroscopically stabilized camera with zoom as well as the thermal imagery which tracks people or evidence by heat signatures.
Nightsun (Spotlight)	Provides for effective search with a 30 million candle power light that can be slaved to the thermal imagery camera.
Police radios	Allow for communications with all agencies and frequencies.
Moving Maps	This is a GPS-based moving map system that lets the Tactical Flight Officer know where they are so as to give accurate directions to ground resources.
Public Address System	Powerful loudspeaker to address public gatherings.
Rear View Monitor	Allows those in the rear to see exactly what the Tactical Flight Officer sees, used for training and strategic ride-a-longs.
Dual Controls	Permits flight training to occur with the aircraft.
Video Downlink	Enables transmission of live aerial video feeds to a police or fire department supervisor on the ground.

5. OPERATION

Safety

The issue of Flight Safety is taken very seriously by the Winnipeg Police Service. The location of the Unit on a Canadian Forces establishment lent itself to developing a safety culture and program based on the Canadian Forces model.

17 Wing Winnipeg was very accepting in helping to develop and run the Flight Operations Unit Safety Management System (SMS) along with the policies, procedures, and practices that come along with it. This began with unit briefings on the importance and focus on flight safety. All members were then mentored through the reporting system, including what incident and accident components to report. Unit leadership was briefed on the steps to take when a flight safety incident occurs, including jurisdictional issues.

17 Wing Flight Safety Office took on the task of appointing a qualified Flight Safety Officer to oversee the program while unit members gained experience in an air operation. The Canadian Forces also offered unit personnel the opportunity to develop an integral safety officer by opening candidate spots on their safety course.

Unit leaders regularly attend the Wing Safety meeting in order to stay abreast of ongoing safety issues and contribute where necessary. The Unit had no major safety events in the first year of operation.



L to R: 17 Wing Commander Colonel Yvan Boilard, WPS Insp. Mike Herman, WPS Chief Keith McCaskill and Major Mike Wolter, 17 Wing Flight Safety Officer.

In May 2011, Chief McCaskill signed the first flight safety policy.

Winnipeg Police Chief's Policy on Flight Safety states "Winnipeg Police Service resources, both human and material, are precious. The aim of the Winnipeg Police Service Flight Safety Program and Policy is to preserve these valuable resources. Having Winnipeg Police Service personnel engaged in recognizing and minimizing risk on a daily basis is key to this aim, efforts which will mitigate personnel injuries and loss of valuable aviation resources. As such, this program is of premier importance and must be accorded the highest priority."

Equipment

As helicopters in the EC120 size/class do not have wheels, the helicopter must land on an apparatus that allows it to be towed. Initially, the WPS purchased a dolly for take-off and landing, and for towing the helicopter in and out of the hangar. This heavy duty, raised platform type dolly is towed by a truck.

As part of a comprehensive Safety Management System, the unit constantly assesses the safety risks of each aspect of the program. The structures and environment around the hangar result in significant wind gusts that cause mechanical turbulence and increase the risk to both aircraft and crew. Through safety assessment, it was determined that the helicopter would have a safer take-off and landing directly from the ground. As a result, a Heli-Tow Cart was purchased to address this safety concern. The cart model eliminates the need for a tow vehicle and enables single-handed movement of the helicopter across the tarmac and within the hangar.

Public Responsibility

Prior to the launch of AIR1, there was no local capability to address the problem of lasers being shone at aircraft arriving and departing from the Winnipeg area. Now that a police response is enabled, AIR1 has successfully directed ground units to locate suspects who violate the Canadian Air Regulations and Aeronautics Act, creating hazardous flying conditions for local pilots.

Laser Incidents

DATE	TIME	RESULT	LASER TYPE	SUMMARY
2011 01 29	1956 hrs	Not Identified	Green	1 Attempt, no strike
2011 02 03	2330hrs	Not Identified	Green	3 attempts, 1 strike to cockpit
2011 02 26	2301hrs	Not Identified	Green	1 attempt, 1 strike to cockpit
2011 03 10	0010 hrs	1 Suspect Arrested	Green	12 attempts, 7 strikes over 3 minutes
2011 08 20	0227 hrs	1 Suspect Arrested	Green	4 strikes to cockpit over 6 minutes
2011 10 06	0155hrs	Not Identified	Green	2 short strikes over 20 minutes
2011 10 08	2245hrs	1 Suspect Arrested	Bright white light	5 sustained strikes over 3 minutes

Excerpt from Winnipeg Police Service Media Release, March 10, 2011

Flight Operations Unit - Individual Arrested

On March 10, 2011 at approximately 12:10 a.m. Winnipeg Police Service's helicopter, AIR1, was on patrol in the area of Portage Avenue and Broadway, when the 39 year old female pilot in command, was struck directly in the eyes by a green laser beam. The laser beam entered the helicopter through the lower pilot side front window.

The pilot immediately took evasive action to protect her eyes, and those of the flight team. Tactical Flight Officer was able to determine the source of light was coming from a male within a yard in the 200 block of Toronto Street, and general patrol officers were advised. At approximately 12:15 a.m., Winnipeg Police Service Division 11 Uniform Officers attended, located and arrested the suspect male without incident.

The Winnipeg Police Service considers this to be a serious offence and cautions members of the public to refrain from illuminating any aircraft with bright light sources, including laser pointers.

An intense beam of light from a spotlight or laser pointer can create a potential hazard for aircraft pilots and flight crews. The effects of this bright light being focused on the cockpit at night can startle and distract the flight crew, and cause vision problems ranging from a simple annoyance to temporary blindness. Bright light sources subsequently affect the pilot's ability to safely operate the aircraft, and can lead to catastrophic circumstances.

This is an ever increasing problem for aviators in Canada, with over 180 reported incidents of pilots being struck by an intense light source in 2010.

The Winnipeg Police Service's Helicopter, AIR1, has been outfitted with the most advanced equipment available. This equipment assists members in locating persons who direct bright light sources at an aircraft and also has the capabilities to capture video evidence of the crime.

Directing a bright light source at an aircraft is an offence under section 7.41(1) of the Aeronautics Act of Canada, and Section 601.20 of the Canadian Aviation Regulations. The Criminal Code of Canada also contains several sections relating to this offence, some of which carry significant penalties, including life in prison.

Noise Complaints

The issue of noise complaints was recognized as critical in terms of ensuring there is an adequate way to track and respond to issues from the citizens who are disturbed as a result of air operations.

In total, 17 individuals submitted 20 separate noise complaints during the first year of operation. The majority of these occurred in the summer months while some residents sleep with their windows open.

There is a process in place to track these complaints and the unit leaders ensure that each complainant is contacted to discuss the complaint as well as explain what the police were responding to that warranted air support. In the majority of cases, complainants were satisfied that the cause was justifiable.

Highlights

Airborne Law Enforcement Association (ALEA)

In October 2011, the Winnipeg Police Service hosted the regional Airborne Law Enforcement Safety Seminar. An article was subsequently published that summarized this event and is included below.

ALEA's Canadian Regional Safety Seminar was held at the historic Fort Garry Hotel located in downtown Winnipeg and hosted by Winnipeg Police Service (WPS) Flight Operations Unit. The venue provided the backdrop for the education and networking experience.

To kick off the conference, a plaque was presented to WPS Chief Keith McCaskill, who welcomed members, instructors and vendors from across Canada.

Day one offered the Unit Commander's Forum, which was led by ALEA President Kurt Frisz and included pilots, TFOs and aircraft maintenance engineers.

The Canada-specific content was provided by association members from Calgary (James Partridge), Edmonton (Murray Maschmeyer), Winnipeg (Dave Dalal) and Transport Canada (Stephane Demers), who led discussions on TFO selection and training, marijuana eradication, crew resource management and Canadian aviation regulations. Further seminar educational content covered topics such as flight risk assessment and emergency response planning, post traumatic stress disorder, swift water rescue, high-rise emergencies and unmanned aerial systems.

The networking events were made possible by corporate sponsors for meals and social gatherings, including Bell Helicopter Textron, Canadian Helicopters, Pilatus Aircraft, Meeker Aviation, GasTops, CanRep, the Winnipeg Police Association, Winnipeg Police Service and other vendors that displayed products and led discussions.

"Hosting a regional safety seminar is both challenging and rewarding," said WPS Flight Operations Unit Sergeant Dave Dalal. "It gives your organization an opportunity to not only showcase its program, but it gives all members of your unit greater access to attend the seminar. This opportunity was exactly the reason Winnipeg Police Flight Operations Unit jumped at the chance to welcome fellow ALEA members to the area."



Photo by Robert O'Quinn, ALEA.

L to R: Superintendent Dave Thorne, Chief Keith McCaskill, Deputy Chief Art Stannard

"Working with extremely experienced and talented ALEA staff was what made this experience achievable even with a high operational tempo."

The host agency does not have a significant amount of initial work but does provide input in several areas such as content, conference location, social events and sponsorship. The conference itself was an excellent learning experience in that we were able to share and learn from each other, something particularly important and relevant as a new program. We were also exposed to a number of operations that we don't currently undertake such as swift water and high-rise rescues. This provided good food for thought as a capability our city does not yet have."²

² AIRBEAT Magazine January/February 2012

Operational Highlights

In the course of the year several events should be recognized as benchmarks in operational success, particularly as the presence of AIR1 was essential to the outcome of the call.

Fleeing with a Gun

On April 16, 2011, between 9:30 pm and 10:30 pm, two individual males in the downtown area were approached in separate incidents by an unknown suspect who produced a handgun and subsequently fled the area.

Winnipeg Police were contacted and located the male riding his bike Northbound Agnes approaching St. Matthews. The accused was subsequently tracked by AIR1 and furthermore witnessed to throw a handgun from his waistband into a yard on Agnes St. This occurred in darkness and would have been undetected if it were not observed on the FLIR and location identified on the ARS system.

A short time later with the assistance of AIR1 providing directional updates the accused was taken into custody. The said firearm was subsequently recovered from the yard on Agnes St.

The accused was subsequently charged with the following offences:

- Failing to Comply with Undertaking x2
- Knowledge of unauthorized Possession of firearm
- Possession of Weapon for Dangerous Purpose
- Possession of Weapon while prohibited

Reckless Motorcycle

On June 8, 2011 police were in the area of Island Shore Blvd and Bishop Grandin Blvd when a motorcycle was observed traveling at a high rate of speed eastbound on Bishop Grandin Blvd. Police observed two occupants on the motorcycle passing between vehicles using the yellow center line causing a danger to himself, the passenger and other motorists. Police attempted to conduct a traffic stop however the motorcycle accelerated and continued to evade police at speeds reaching 200 km/hr.

The motorcycle left the city believing he had evaded police returned into the city all the while tracked by AIR1 who coordinated with ground units and utilized the night sun to light up the area around the suspect letting him know he was caught. The suspect immediately slowed to a stop and pulled over successfully co-ordinated between AIR1 and the ground units and a pursuit was avoided.

The suspect was subsequently charged with the following offences:

- Dangerous Operation Motor Vehicle
- Flight
- Drive Carelessly
- Drive without a Licence

Carjacking Victim

On June 22, 2011, at approximately 10:00 pm an adolescent female victim and her female cousin were in a vehicle in front of an address on Elgin Ave. waiting for a family member. The vehicle was running.

At this time a suspect approached the vehicle opened the unlocked driver side door, sat in the driver's seat and stole the vehicle containing the two occupants.

One female was able to escape from the vehicle however the victim was unable to do so.

The suspect drove erratically, disobeyed traffic control devices, and drove to Inkster Blvd. and eventually to Highway 26.

The suspect operated the vehicle at speeds up to 180 km/hr while fleeing the area and repeatedly told the victim he would rape her and she would die.

At approximately 10:30 pm, the suspect stole a second vehicle and threatened the owner by making reference to having a 9mm gun. The owner of the said vehicle was subsequently dragged several meters before he was able to free himself from the fleeing vehicle.

The second stolen vehicle broke down near Highway 26 and a serious sexual assault took place involving the adolescent female victim.

While the accused stole a third vehicle the victim was able to flee to a nearby residence where police were contacted.

The accused then made his way to the RM of Portage La Prairie where he stole an off road vehicle.

At 12:26 am, AIR1 attended to the RM of Portage La Prairie and located the accused on the stolen ATV. AIR1 was subsequently able to track the suspect for 50 minutes in total darkness with the FLIR while numerous WPS and RCMP ground units got bogged down in mud containing the area. The suspect got his ATV stuck in the mud and fled on foot hiding along the river while AIR1 ultimately co-ordinate his capture with the attending ground and K9 units in total darkness.

The accused was charged with the following offences

- Breach Probation X 2
- Aggravated assault
- Abduction
- Utter threats X 2
- Theft under 5000 X 3
- Robbery with firearm
- Drive dangerous
- Sexual assault with a weapon
- Break, Enter, commit indictable offence

Weapons Recovered in Vehicle

On September 4, 2011, members of AIR1 patrolling the West-End observed a vehicle operating in a dangerous manner such that the vehicle was bottoming out on the concrete road causing sparks to fly out from undercarriage. They tracked the vehicle Northbound on Worth Street, then Eastbound Ross Avenue up to Cecil. AIR 1 directed Patrol Units to a traffic stop where one of the occupants was found to be in possession of weapons.

The suspect was charged with the following offences:

- Possession of Weapon for Dangerous Purpose
- Unauthorized Possession of a Weapon

Stabbed during Home Invasion

On September 6, 2011 at approximately 4:00 am, suspects attended to an address on Flora Ave, where they forced their way into the residence. Once inside they pulled out a machete and a sawed off shotgun. The resident was dragged into the living room where he was stabbed twice in the upper body and struck with the gun in the head.

The suspects subsequently stole property and fled the residence.

AIR1 was the first unit to attend to the area and was able to locate the suspects as they fled. AIR1 continued to track the suspects as they attempted to evade members on the ground and eventually co-ordinate their capture.

The suspects were charged with the following offences:

- Break and Enter with intent to commit indictable offence
- Robbery with a Weapon
- Aggravated Assault
- Possess for the purpose of trafficking
- Possess Weapon for Dangerous Purpose x 2
- Point Firearm
- Knowledge of Unauthorized Possession of Firearm x 2
- Use Firearm - Use while committing offence
- Possess Firearm while Prohibited.

Vehicle Arson

On November 6, 2011, AIR1 while patrolling observed a large fire in the area of Simcoe that had been set to a car and subsequently located the suspect hiding near-by.

AIR1 tracked the suspect and observed as he lit a second vehicle on fire and attempted to flee the scene.

AIR1 directed ground units to the suspect who was charged with the following offences:

- Possess Weapon for Dangerous Purpose x 3
- Possess Incendiary Materials x 1
- Arson - Damage to Property x 2
- Possess goods obtained by crime
- Possess Consume Alcohol as a Minor

Assistance to Outside Agencies

- RCMP
- Manitoba Finance Special Investigations Unit
- Manitoba Search and Rescue
- Province of Manitoba Emergency Measures

Public Displays

- WPS Community Golf Challenge – Rossmere Golf & Country (for inner city youth scholarships)
- SARscene 2011 - Canada's National Search and Rescue Conference

Presentations

Presentations to Winnipeg Police Service Units

- Recruit Class, Recruit family night, Ground Search and Rescue, Canine, Tactical Support Team, Volunteers, Green Team, Communications Centre, Police Vehicle Operations, Senior Management

Community Presentations

- Winnipeg Fire Department, University of Winnipeg, Rotary Club, Masons, Aboriginal Youth Career Awareness Camp, American Society for Information Science (ASIS International)

6. PERFORMANCE

Quarterly Summary of Flight Hours

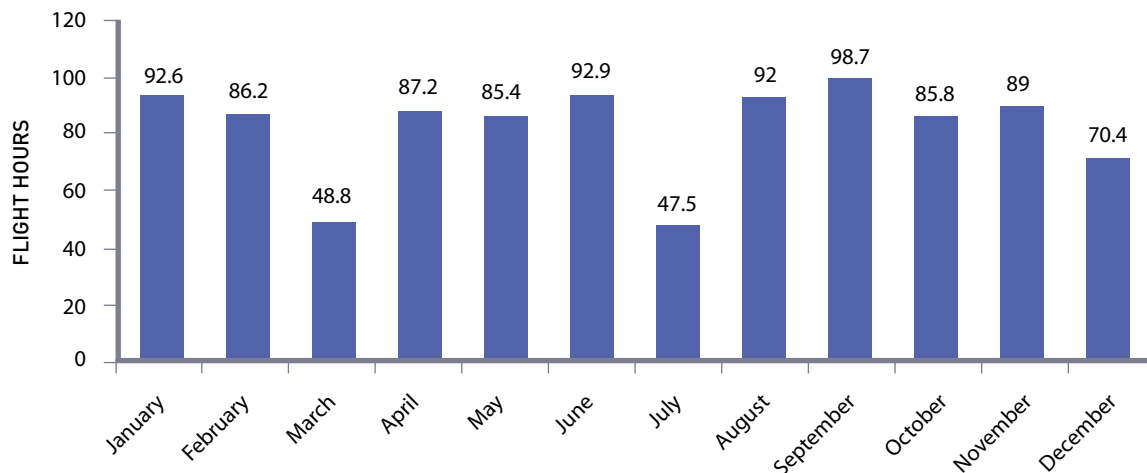
	Q1	Q2	Q3	Q4	2011
Total	227.6	265.5	238.2	244.9	976.5

Due to the operation of the Unit commencing in February 2011, the Q1 statistics are not fully representative of operational deployment. The figure accounts for flight time in December 2010 and hours accumulated in January for training and preparation for the go-live.

Flight hour accumulation on the airframe:

- Factory testing on airframe December 1, 2010 = 15.2 hours
- On arrival in Winnipeg December 6, 2010 = 28 hours
- December 31, 2010 = 70.2 hours
- January 31, 2011 = 92.6 hours
- December 31, 2011 = 976.5 hours
- Operational flight hours February 1 to December 31, 2011 = 883.9 hours

Flight Hours by Month



While the table illustrates the distribution of flight hours by month, the Unit achieved a monthly average of 81.3 flight hours.

March and July flight hours were impacted by unscheduled maintenance events.



Operational Hours

Based on the Unit shift schedule, the helicopter was staffed to be available for a total of 3696 hours during the 11 month assessment period. As the Unit budgeted 1000 flight hours for the full year, the standby time was 2696 hours, barring unscheduled down time due to weather or mechanical issues. The helicopter responded to 132 calls for service from the hangar (in stand-by mode).

Additional on-duty time for Flight Operations Unit members while in stand-by mode is consumed through pre-flight daily inspections, report writing, video downloading and processing, recording of statistics, communication with user units, weather briefings, updating aircraft and pilot log books, and review of police related bulletins. In addition to the daily administrative tasks, day shifts are utilized for training and unit awareness/education opportunities.

While the planned maintenance schedule was established to follow rotating days off, unscheduled maintenance events that overlapped with on-shift times resulted in a decrease in operational time. Down time due to uncontrollable factors, such as weather, also represents flight time lost.

Quarterly Summary of Flight Time Lost (by day)

Factor	Q1	Q2	Q3	Q4	2011
Weather	3	5	1	9	18
Maintenance	4	5	18	0	27

Maintenance Impacts

While regular maintenance occurred through a scheduled progression, the Unit lost 27 additional days to unscheduled maintenance events during its first year of operation. The following maintenance actions were required:

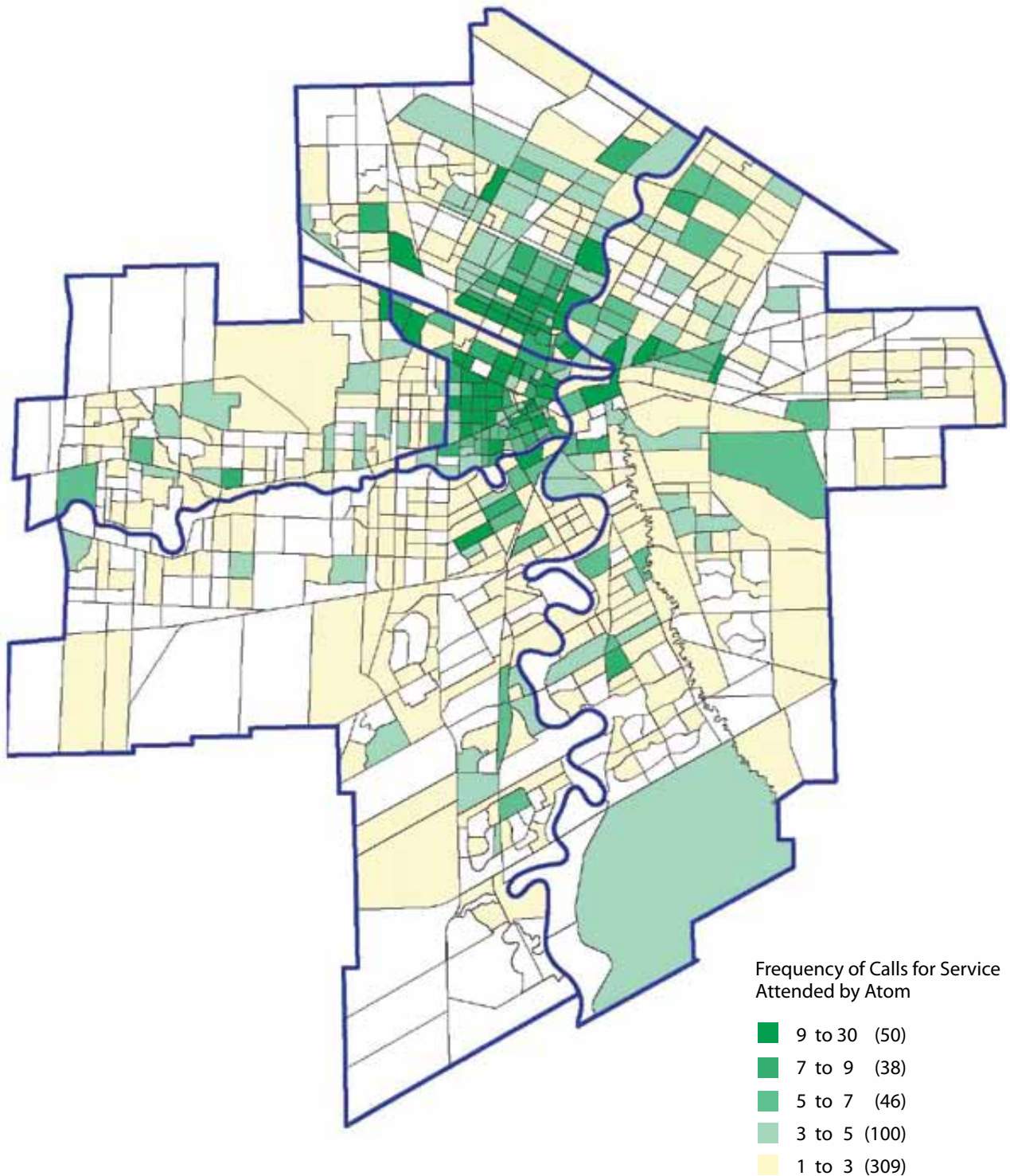
- **March** – Engine oil flushed and oil coolers changed due to metal contamination.
- **April** – Engine swapped due to metal contamination. S/N 34676 removed and S/N 31489 installed. Oil coolers changed.
- **July** – Engine S/N 31489 removed and S/N 34676 reinstalled.
- **September** – Engine swapped due to metal contamination. Engine S/N 34676 removed and S/N 31489 reinstalled and will remain with aircraft under Turbomeca SBH program. Oil coolers changed. Arrius 2F start nozzles changed due to failed starts.

Summary of Incident Type by Activity February 1, 2011 to December 31, 2011

During the first year of operation, members in the unit arrived on scene at 1780 incidents. The following table contains a summary of the most frequent type of incidents attended:

B&E (All)	189	MISSING PERSON ASSIST	11
SUSPICIOUS PERSON	135	GUN SHOT WOUND	9
TRAFFIC STOP	109	PROWLER	9
ASSAULT	92	SPECIAL ATTENTION	9
SHOTS FIRED	87	WARRANT	8
ALARM (All)	84	BREACH	7
GUN SEEN	72	CHILD SAFETY	7
DOMESTIC DISTURBANCE	71	MEDICAL CALL	7
ROBBERY - PERSON	70	ASSISTANCE REQUIRED	6
ROBBERY - COMMERCIAL	64	DISPUTE	6
DISTURBANCE	63	WARRANT EXECUTION	6
TRAFFIC COMPLAINTS	63	INVESTIGATION	4
WEAPON	62	OFFICER	4
FIGHT	57	INSECURE PREMISIS	3
WELLBEING	52	SEXUAL ASSAULT	3
FIRE	46	STOLEN VEHICLE LOCATED	3
STABBING REPORTED	41	ASSAULT – AIR1 LASERED	2
IMPAIRED DRIVING	35	GRAFFITI	2
DAMAGE	34	NARCOTIC	2
ASSAULT WITH WEAPON	30	NOISE	2
MVC	28	VICE	2
DANGEROUS SITUATION	26	E911 HANGUP	1
FAMILY TROUBLE	24	ESCORT	1
GUN KNOWN	23	PURSUIT	2
SUICIDE THREAT	23	SHOPLIFTING	1
FOLLOW	21	SPECIAL DUTY	1
STOLEN VEHICLE	18	TRAINING	1
THREAT REPORTED	16		
THEFT	14		
		TOTAL	1780

AIR1Flight Activity - Density of Occurrences by Atom February 1, 2011 to December 31, 2011



Overview of AIR1 density of occurrences in Winnipeg (795 Atoms total)

- 252 atoms had zero calls for service
- 20 atoms had 9 calls for service and 1 atom had 30 calls for service

Quarterly Summary of Incidents Attended

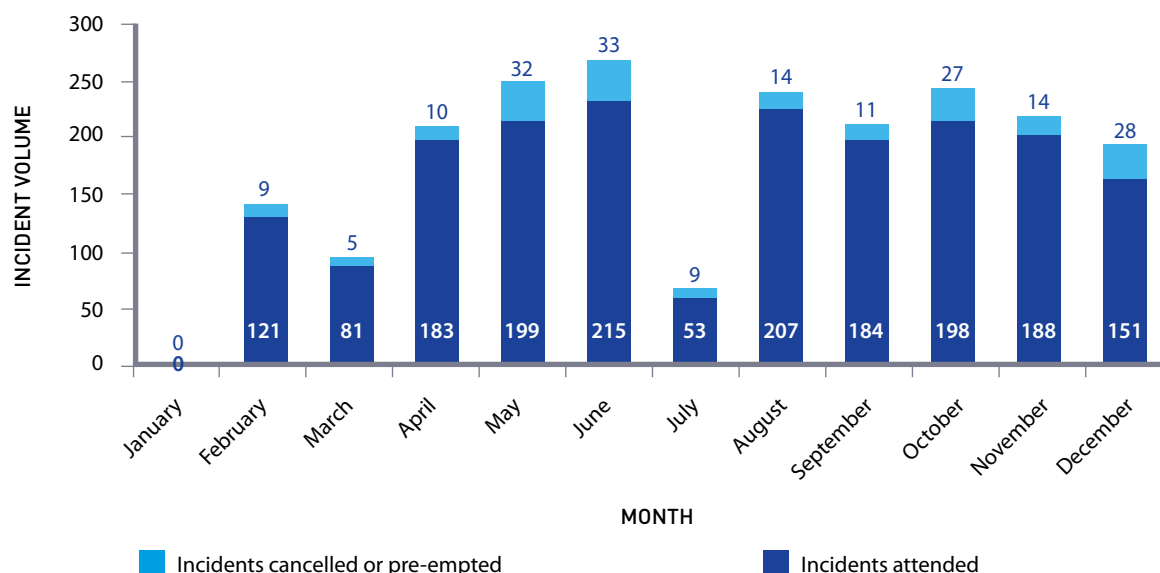
	Q1	Q2	Q3	Q4	2011
Total	202	597	444	537	1780

While the summary indicates that AIR1 arrived on scene at 1780 incidents, the unit was also dispatched to an additional 192 events that were ultimately cancelled or pre-empted.

Quarterly Summary of Incidents Cancelled or Pre-empted

	Q1	Q2	Q3	Q4	2011
Total	14	75	34	69	192

Total Incident Volume by Month



Using the total events dispatched at a total of 1972, which includes all calls attended as well as cancelled or pre-empted, AIR1 was dispatched as the prime unit 652 times.

During the research process, using an estimation of aircraft in-service hours at 80 each week with approximately 20 in-flight hours, it was determined that the proposed shift schedule would permit the helicopter to respond to 60% of in-progress calls.

Using the same analysis with the Unit schedule superimposed over all in-progress calls during the 11 month assessment period, AIR1 responded to 59% of such calls.

As an operational unit, a number of benefits are recognized in deploying the helicopter, including additional support to ground units, and improved vantage point to communicate and evaluate the call for service. In several instances, AIR1 was responsible for assessing the incident and calling for the redirection of ground units.

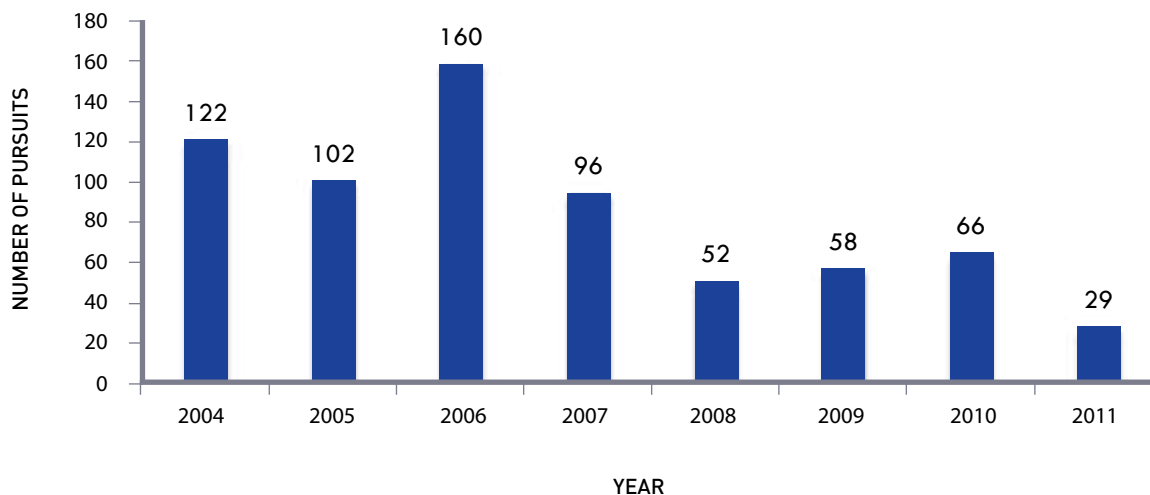
Calls for Service

AIR1 is a highly visible policing resource that can have a significant deterrent effect on the criminal element. As an aerial platform, AIR1 provides the first level in the force continuum – “officer presence.” Anecdotal reports throughout the year confirm that the attendance of AIR1 can indirectly influence criminal activity – essentially where the presence of the helicopter was perceived to prevent or suppress crime – although crime prevention is impossible to measure.

As a unit involved in managing police incidents, the presence of the helicopter influences the outcome of calls for service. As detailed in the Unit records, while the helicopter attended 1780 events, the presence of AIR1 directly influenced calls for service that led to 127 arrests.

Pursuits

Events from 2004 to 2011



Since 2004, the Service has implemented a progressive approach to pursuit management with significant changes to pursuits over the years that affected the number of police pursuits over time. Comprehensive review and multiple changes to pursuit policy introduced significant changes and additions to police capabilities relating to pursuits including:

- introduction of strategic follows to coordinate police resources to overwhelm a suspect offender with superior tactics and numbers prior to being able to flee the police
- pre and post pursuit protocols to identify and arrest offenders
- police vehicle containment tactics (rolling blocks, containment blocks)
- deployment of spike belts
- inter-jurisdictional pursuit policy

With policy introduced in 2004, the first full year of effect was 2005. The number of pursuits went from 122 down to 102, with 60 strategic follows and 82 arrests in the first year of pursuit policy. Pursuits continued to drop as officers became more proficient in strategic follows and containment techniques.

In August 2005, the Winnipeg Auto Theft Suppression Strategy (WATSS) was introduced as the Winnipeg Police Service partnered with Manitoba Public Insurance (MPI) and Manitoba Justice (Youth Correctional Services and Prosecutions). This program closely monitors the worst auto theft offenders.

As a result, pursuits have continuously declined to the point where in 2011, there were only 29 pursuits, a 76% reduction from 2004.

AIR1 was involved in a total of 39 Follow and Stolen Vehicle incidents. Such incidents commonly intensify to a pursuit situation. However, the application of effective pre-pursuit tactics can reduce the risk to the public when such coordinated tactics stop vehicles and prevent escalation. With the introduction of the helicopter to pursuit protocols, there is even less reason to pursue, with the whole event coordinated from the air, including utilizing containment blocks of suspects in safe locations pre-pursuit. AIR1 is extremely effective at coordinating pre-pursuit stopping techniques.

2011 PURSUITS	29 TOTAL
AIR1 Dispatched	2 – both resulting in apprehension
On Duty, not involved	5 – due to short duration of event
Grounded	6
Off duty	13
January occurrence	3 – not during Unit operation time

7. FINANCIAL CONSIDERATIONS

Startup Expenses prior to December 31, 2010 = \$389,263.99

Purchase price of Eurocopter EC120 = \$3,120,000

Flight Operations Unit expenses January 1 to December 31, 2011 = \$1,196,693.90 (billed to Province)

8. RETROSPECTIVE

As part of the year in review, the Staff Sergeant Division 50 requested a look back at the year with the new police helicopter, particularly as to how the helicopter assisted or impacted WPS members on a personal and professional level during major incidents where AIR1 helped to bring a successful conclusion.

"This call is a once in a lifetime call that every kid that ever wanted to be a cop wanted to be a cop for this call. So here's my view on AIR1. This is their achievement, I was just lucky enough to be the guy on the ground. (John Doe) would never have been caught without AIR1. When we found out (Doe) was on a quad, it was AIR1 who found the quad and we finally had a fighting chance to catch this guy. He took us to places cars couldn't go. Air1 stayed with him overhead and I decided to get my dog and head into the marsh after him. It was extremely wet and very dark, in fact the darkness was something I'll never forget. Judge and I slugged through the Marsh towards (Doe) who was stuck on the quad. By all accounts he was armed with a firearm so it was almost surreal going through the marsh towards him. At times we were mid-thigh in water with me having to carry Judge towards (Doe). With all that going on, it was very comforting to have AIR1 overhead giving me updates on how close we were getting to him and what he was doing. At one point, we were close enough I could hear him grunting trying to free his quad but with the marsh grass, etc., AIR1 were our eyes on this. As we got close, he got the quad free and we were forced to run back in the opposite direction. He finally flipped the quad and was on foot, with AIR1 following. When we got to the flipped quad, Judge began tracking (Doe) with AIR1 providing updates of his location. He then entered the water and lay in the weeds. Judge then entered behind him and extracted him. As I said, I fully believed he had a gun and when we were getting close, I really wasn't sure what to expect, however AIR1 performed their job perfectly. We've received a lot of praise for this call, but in reality it's AIR1's baby."

Patrol Sergeant Scott Taylor with PSD Judge – Winnipeg Police Service Canine Unit



Photo by Coreena Lloyd Photography.

"One particular incident that stands out when I was dispatching, it was a male on a bicycle armed with a gun (possibly was a robbery). Canine was assigned to attempt track and several units assigned as well for a perimeter for the canine unit. AIR1 volunteered from another major incident in another district and was on scene almost immediately. They quickly voiced spotting the suspect on the bike and updated the units accordingly. The most impressive was when they voiced that the suspect tossed an item that they believed was likely the weapon, and provided the exact address where the item was thrown, and one of the units was able to attend and recover the weapon immediately. They would lose sight of the suspect periodically but coordinate the cruiser cars with the sightings of the suspect and an arrest was made within several blocks of where the event occurred and where the weapon was recovered. I have no doubt our canine unit would have come up with an arrest as well, however, the time saved, the quick recovery of a gun, and the ease of organizing a perimeter with their transmissions was just amazing."

PCO Brenda Foy – Winnipeg Police Service Communications Centre

"As a supervisor in the Communications Centre, I have experienced a multitude of events where AIR1 has proven to be a benefit to WPS members as well as public, however, there have been occasions where AIR1 has been priceless. When a lone member is in a foot pursuit, or when our K9 member is involved in a track, they will often lose their bearings and have no recollection of how many streets they have crossed or what direction they have travelled. Having the reassurance of AIR1 being able to determine the exact address or location of our members is the epitome of officer safety."

SCO Deb Lofto – Winnipeg Police Service Communications Centre

"AIR1 is an amazing resource. They are often the first to arrive on scene and are able to marshal resources more effectively than any other unit in the service as they have the advantage of the view from above. They are quick to advise when additional units are not required and free up resources that can be better utilized at other events. They are a tremendous asset to the WPS. Watching video from the FLIR, it is apparent the high skill level members who fly in AIR1 possess; extremely impressive."

SPCO Stacey Cann – Winnipeg Police Service Communications Centre

"I use AIR1 as much as I can while working. I find them very helpful, especially in the downtown areas where there are high fences for blocks and it would take my dog and I hours to clear those areas, while AIR1 can do the same in just minutes. Also I had an incident this winter where three guys broke into (a place). During the track of the three suspects I fell down a train overpass and hurt myself. Diesel and I continued tracking the three guys for the B & E, but they were about a mile ahead of us so when AIR1 showed up they located us in the treed area by the river. They were able to scan ahead and located the three subjects still running away. I had to call it quits as I couldn't walk anymore, but AIR1 was able to follow the subjects to a nearby street and led GP members to them which led to all three being arrested. Without AIR1 they would most likely have got away."

Constable Jay Jaskiewicz with PSD Diesel – Winnipeg Police Service Canine Unit

"One of the ways that AIR1 has assisted us with our safety is during high risk tracks for armed subjects, such as from drive by shootings to armed robberies with firearms and other weapons. While our role is often to provide cover for the canine units that are tracking these subjects, AIR1 is able to provide cover and oversight for us, potentially protecting us from walking into an ambush. One of the biggest question marks we had coming into the program was would AIR1 be available when needed? Despite some recent negative press about maintenance, the limitations from our perspective have seemed to be more predictable weather related issues than due to maintenance. It seems the timing of the maintenance schedule has not affected the availability of AIR1 to us to any great extent."

Patrol Sergeant Brent Tully – Winnipeg Police Service Tactical Support Team

"While working in the Duty Office, I oversaw an incident involving a stranger abduction of a teenage female victim. Suspect had left with the victim in a vehicle, travelling at a high rate of speed, direction unknown. We needed an eye in the sky to quickly provide intelligence on the suspect vehicle in order to quickly resolve this incident and save the victim from potential threat. AIR1 was called out for duty and quickly deployed and were in the air. There was an immediate sigh of relief in the communications centre, I can only imagine how relieved members of general patrol must have felt as AIR1 was in the area of reported suspect vehicle sightings. Within minutes of being assigned AIR1 spotted the suspect vehicle and organized general patrol units including K9 unit, to successfully capture the suspect. The victim's life was saved from further harm. Without AIR1, I am certain we wouldn't have captured this violent suspect and fear there could have been grievous bodily harm or death perpetrated on the victim."

Staff Sergeant Rick Sharma – Winnipeg Police Service Duty Office

"Uniform members responded to a call to a construction site where I, with my canine partner, attended to assist. It was discovered that the suspect had broken into a residence and was in the process of stealing property. Prior to deploying canine, AIR1 joined the uniform members who were establishing a perimeter. The writer tracked and located the suspect along the bank of the river hiding amongst the brush and under growth. Ultimately ground units cannot cover off the river banks without contaminating the area canine is attempting to track through. The presence of AIR1 forced the suspect to ground and hide. This greatly increased the potential for success by limiting the suspect's forward progress. Without AIR1 this suspect would have had the opportunity to continue evading police with little chance of detection. The presence of AIR1 was also piece of mind in that AIR1 could direct uniform members quickly and accurately as this canine team had little means by which to guide members into our location. As a result of the quick apprehension by the efforts of all members involved, we were available to respond to further calls for service."

Constable Jason Hedley with PSD Deuce – Winnipeg Police Service Canine Unit

"Over the last several months I have had the opportunity to utilize the assistance of AIR1 on numerous occasions. During an evening shift, I observed a motorcycle at a high rate of speed eastbound on Bishop Grandin Blvd. I attempted to conduct a traffic stop but the motorcycle took off, reaching speeds of 260 km/h. I was able to maintain a long visual until AIR1 attended. AIR1 was able to acquire the motorcycle, coordinate ground units and with the use of the night sun bring an end to the pursuit. On numerous occasions I have been assigned as a one person unit either in the Community Support Unit or as a Street Supervisor. During those times I have conducted numerous traffic stops of persons believed to be armed and dangerous as well as persons associated to organized crime. During those stops I have come to count on and appreciated the support provided by AIR1 as they maintain an orbit above, providing cover and watching over my safety. I believe these incidents would not have had the same results or outcomes without the aid and assistance of AIR1. As for my safety, the response time and coverage from above while I conduct my daily duties is unequalled."

Constable Jeffrey Norman - Winnipeg Police Service East District Station - Community Support Unit



POLICE
FLIGHT OPERATIONS



C-GAOL

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